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10/031,200	01/15/2002	Jiro Nakabayashi	1275-48	2637

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ARLINGTON, VA 22203

EXAMINER

MATTIS, JASON E

ART UNIT	PAPER NUMBER
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2616

MAIL DATE	DELIVERY MODE
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09/06/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/031,200

Applicant(s)

NAKABAYASHI, JIRO

Examiner

Jason E. Mattis

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19-22,25,27,29,31-34,37,39,41,43 and 44 is/are allowed.
- 6) ☒ Claim(s) 23,24,26,28,30,35,36,38,40 and 42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>1 paper</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to the Amendment After-Final filed 8/6/07.

Claims 19-44 are currently pending in the application.

2. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 28 recites the limitation "the modifications of the reference value" in lines 12-13. There is insufficient antecedent basis for this limitation in the claim. The only previous modifications discussed in the claim are modifications to "the size of the receiving buffer". It is recommended that a limitation regarding a modification of the reference value be added to the claim such that there is sufficient antecedent basis for ""the modifications of the reference value".

Claims 30, 40, and 42 each contain similar errors to that of claim 28.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 23, 24, 26, 35, 36, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pogrebinsky et al. (U.S. Publication US 2002/0101855 A1) in view of Treadaway et al. (U.S. Pat. 6480477 B1), Ohlsson et al. (U.S. Pat. 6452950 B1) and Cloutier (U.S. Pat. 5966387).

With respect to claims 23 and 35, Pogrebinsky et al. discloses a packet processor including a recording medium holding a packet processing program (See page 2 paragraphs 27 and 30 and Figure 4b of Pogrebinsky et al. for reference to an IP terminal 110, which is a packet processor processing data received via a network to reproduce the data, and for reference to the invention being embodied as software, which is a recording medium holding a program). Pogrebinsky et al. also discloses a receiving buffer for storing received packets (See page 2 paragraph 27 and Figure 4b of Pogrebinsky et al. for reference to jitter buffer 112, which is a buffer storing received packets). Pogrebinsky et al. further discloses a reproducing means (See page 2 paragraph 27 and Figure 4b of Pogrebinsky et al. for reference to decompressor 116, which is a device that reproduces data of packets).

Pogrebinsky et al. also discloses a control means to reproduce data without breaks

(See page 2 paragraph 27 and Figure 4b of Pogrebinsky et al. for reference to controller 120, which is a control means to control the reproduction of the data).

Pogrebinsky et al. does not specifically disclose that the control means controls packets by their number, holds a reference value, starts data reproduction when the number of packets exceeds the reference value, and collects data up to a level corresponding to the reference value before causing the reproduction of data when the data in the buffer is used up. Pogrebinsky et al. also does not disclose controlling packets stored in the receiving buffer by their number without using temporal information received with the packets. Pogrebinsky et al. further does not disclose modifying a clock for data reproduction.

With respect to claims 23 and 35, Treadaway et al., in the field of communications, discloses a control means controlling packets by their number, holding a reference value, starting data reproduction when the number of packets exceeds the reference value, and collecting data up to a level corresponding to the reference value before causing the reproduction of data when the data in the buffer is used up (See column 18 lines 48-63 of Treadaway et al. for reference to a threshold compare block notifying a read packet state machine when a sufficient number, which is a threshold number, of complete packets are stored in a buffer, and for reference to transmitting the packets from the buffer once the sufficient number have been stored). Using a control means controlling packets by their number, holding a reference value, starting data reproduction when the number of packets exceeds the

reference value, collecting data up to a level corresponding to the reference value before causing the reproduction of data when the data in the buffer is used up has the advantage of allowing a processor to effectively control jitter.

It would have been obvious for one of ordinary skill in the art at the time of the invention, when presented with the work of Treadaway et al., to combine using a control means controlling packets by their number, holding a reference value, starting data reproduction when the number of packets exceeds the reference value, collecting data up to a level corresponding to the reference value before causing the reproduction of data when the data in the buffer is used up, as suggested by Treadaway et al., with the system and method of Pogrebinsky et al., with the motivation being allow a processor to effectively control jitter.

With respect to claims 23 and 35, Ohlsson et al., in the field of communications, discloses controlling packets stored in a receiving buffer by their number without using temporal information received with the packets (See column 5 line 46 to column 6 line 18, column 8 line 11 to column 9 line 5, and Figures 3 and 5 of Ohlsson et al. for reference to controlling packet transmission of packet stored in a jitter buffer by determining a time to play packets based on an estimated jitter delay that is based on a receive time of the first packet without the use of any temporal information received within the packet itself and for reference to controlling further packet transmission using only the sequence number of the packets). Controlling packets stored in a receiving buffer by their number without using temporal information received with the packets has the advantage

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of simplifying the jitter control process by not relying on any time stamp data received with data packets.

It would have been obvious for one of ordinary skill in the art at the time of the invention, when presented with the work of Ohlsson et al., to combine controlling packets stored in a receiving buffer by their number without using temporal information received with the packets, as suggested by Ohlsson et al., with the system and method of Pogrebinsky and Treadaway et al., with the motivation being to simplify the jitter control process by not relying on any time stamp data received with data packets.

With respect to claims 23 and 35, Cloutier, in the field of communications, discloses modifying a clock for data reproduction (**See column 13 lines 41-57 of Cloutier for reference to changing an output clock signal to adjust for detected jitter**). Modifying a clock for data reproduction has the advantage of allowing data output to be optimized to correspond with the rate at which data is received.

It would have been obvious for one of ordinary skill in the art at the time of the invention, when presented with the work of Cloutier, to combine modifying a clock for data reproduction, as suggested by Cloutier, with the system and method of Pogrebinsky, Treadaway et al., and Ohlsson et al., with the motivation being to allow data output to be optimized to correspond with the rate at which data is received.

With respect to claims 24 and 36, the combination of Pogrebinsky et al., Treadaway et al., Ohlsson et al., and Cloutier discloses all the elements of claims 23 and 35 as shown above. Pogrebinsky et al. does not disclose discarding a fixed amount of data when data in the buffer exceeds a predetermined buffer size.

With respect to claims 24 and 36, Ohlsson et al., in the field of communications discloses discarding a fixed amount of data when data in a buffer exceeds a predetermined buffer size **(See column 6 line 37 to column 7 line 44 of Ohlsson et al. for reference to discarding packets when data in a buffer exceeds a size)**.

Discarding a fixed amount of data when data in a buffer exceeds a predetermined buffer size has the advantage of allowing the problem of data overrun in a buffer to be overcome.

It would have been obvious for one of ordinary skill in the art at the time of the invention, when presented with the work of Ohlsson et al., to combine discarding a fixed amount of data when data in a buffer exceeds a predetermined buffer size, as suggested by Ohlsson et al., with the system and method of Pogrebinsky and Haskell et al., with the motivation being to allow the problem of data overrun in a buffer to be overcome.

With respect to claims 26 and 38, the combination of Pogrebinsky et al., Treadaway et al., Ohlsson et al., and Cloutier discloses all the elements of claims 23 and 35 as shown above. Pogrebinsky et al. also discloses modifying the size of the receiving buffer when data in the buffer exceeds a predetermined buffer size **(See page 4 paragraphs 55-56 of Pogrebinsky et al. for reference to increasing or decreasing the size of the jitter buffer based on monitored bursts of packets exceeding a threshold)**.

Allowable Subject Matter

7. Claims 19-22, 25, 27, 29, 31-34, 37, 39, 41, 43, and 44 are allowed.
8. Claims 28, 30, 40, and 42 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.
9. The following is a statement of reasons for the indication of allowable subject matter: Claims 19-22, 25, 27-34, 37, and 39-44 are, or would be, allowable since none of the prior art of record discloses or renders obvious the claim limitation of modifying a reference value for the number of received packets at which reproduction of data is started based on a monitored increase or decrease in the number of packets received at a buffer over time or based on the data in the buffer being used up.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Paul et al. (U.S. Pat. 5778175) discloses a method of modifying the threshold number of bytes of a packet to be received in a buffer before the packet is to begin transmission from the buffer; however, Paul et al. does not disclose that the threshold number is related to a number of packets received.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason E. Mattis whose telephone number is (571) 272-3154. The examiner can normally be reached on M-F 8AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

jem

A handwritten signature in black ink, appearing to read 'Huy D. Vu', with a long horizontal flourish extending to the right.

HUY D. VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600